

COMMITTEE ON APPROPRIATIONS

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April 3, 2009

The Honorable John Murtha
Subcommittee on Defense
House Appropriations Committee
United States House of Representatives
H-149, the Capitol
Washington, D.C. 20515

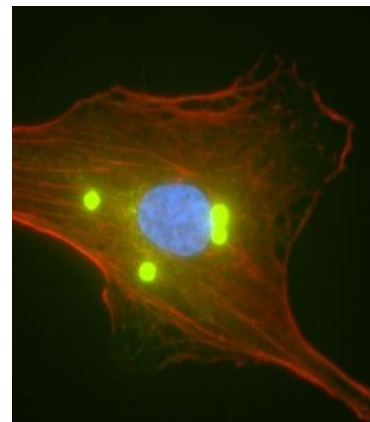
The Honorable C.W. Bill Young
Subcommittee on Defense
House Appropriations Committee
United States House of Representatives
1016 Longworth House Office Building
Washington, D.C. 2051

Dear Chairman Murtha and Ranking Member Young:

As you begin drafting the FY2010 Defense Appropriations bill, I respectfully request your support for the following projects in or near the 7th district of Texas. I have ranked these requests in priority order and attempted to limit the amount of each request to reflect the project's need and simplify your difficult task.

To simplify your task and to help control federal spending, I apply a rigorous filter to every spending request I receive. The starting answer for my support is always "no" and a "yes" is very hard to earn. I will not even consider a request from a private individual or a private company because I think it will unavoidably lead to problems. Then it must be an absolutely essential project of great public benefit that falls within the confines of the U.S. Constitution's grant of authority to Congress, and it must be in dire need of federal funding to assure the continuation of the work in question. Even if these conditions are met, I still filter out quite a few projects because of the dangerously large federal deficit and the unsustainable national debt. After all these filters are applied, I then try to limit the projects I consider to medical or scientific research at the Texas Medical Center or NASA, critical flood control or transportation projects, or defending our borders and our national security. I am especially supportive of nanotechnology research because it will totally transform our lives forever by helping us cure human diseases at the earliest stages when only a few cells are involved, by improving human productivity, as well as the efficiency of every device that runs on electricity, and by helping to make America energy independent.

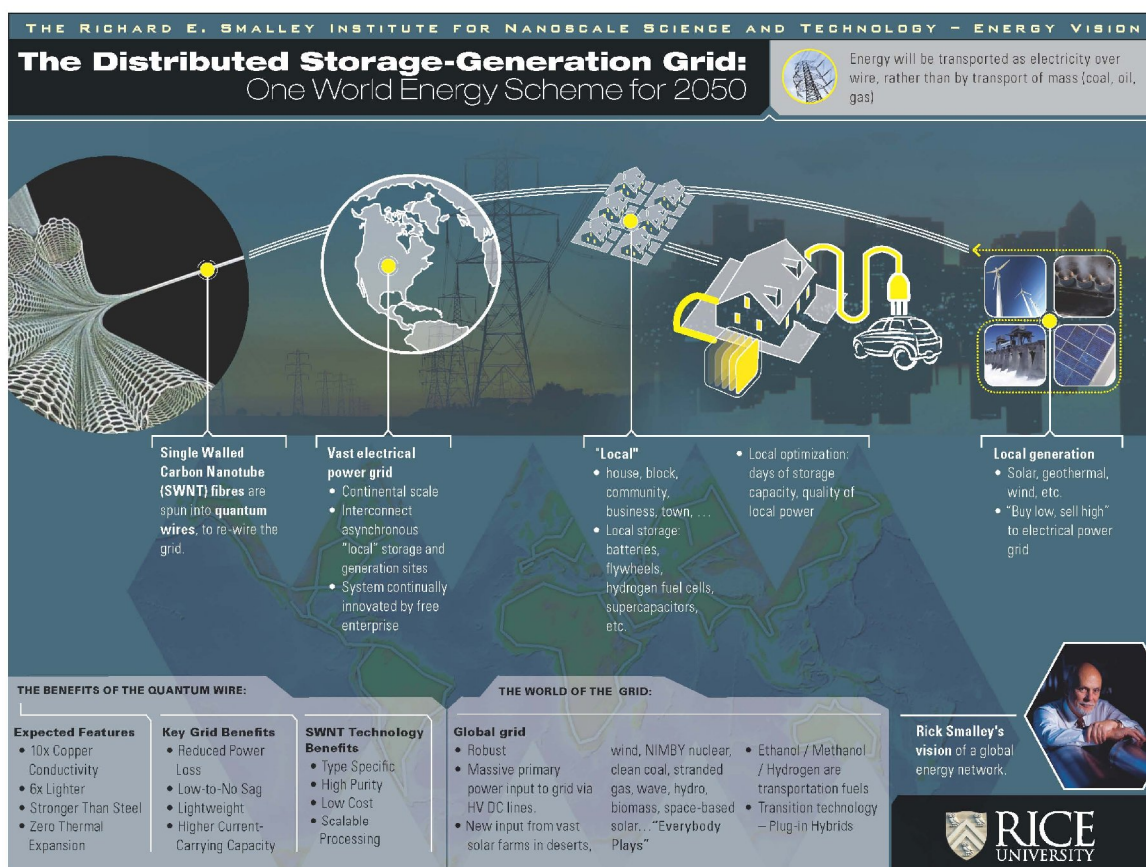
- 1. Alliance for NanoHealth:** \$12,000,000 in the Army, Research, Development, Test and Evaluation account, line 30, #0603002A for collaborative research to advance nanomedicine, which has the potential to provide significant medical



*Nanoparticles transfected medication
to a specific structure within a human
skin cell*

breakthroughs in disease diagnosis, treatment and prevention.

2. **M.D. Anderson Cancer Center:** \$4,000,000 in Army's Research, Development, Test and Evaluation account, line 30 # #0603002A for equipment, supplies and production at the Center for Cancer Immunology, a center utilizing innovation in immunotherapies and vaccinations to cure cancer. In the near future, the center will vaccinate children and adults against Leukemia.
3. **Rice University:** \$5,000,000 in Air Force's Research, Development, Test and Evaluation account, Materials, line 2, PE #0602102F for the armchair quantum wire project to dramatically improve the efficiency of electrical systems used by the Air Force and in the longer term, to help make America energy independent.



The Armchair Quantum Wire (AQW) Program will develop a very highly conducting electrical wire with high tensile strength and light weight. The revolutionary material will enable higher performance in electrical systems while saving substantial weight and energy. The AQW will have a particular impact on the More Electric Aircraft Initiative, as well as broad energy requirements and concerns of the DoD and the services.

This project's goal is to develop Quantum Wire and multi-functional materials based on Single-Wall Carbon Nanotubes (SWNT) while improving SWNT synthesis, production and processing technology, in collaboration with the Air Force Research Laboratory. AQW is a continuous (more than five meter long) thread of well-aligned, well-packed metallic

SWNTs; such thread is expected to conduct electricity better than copper at less than one-sixth of the weight, with minimal heating and with a 10 to 30-fold increase in current-carrying capacity. Seeded and continuous growth of type-selected SWNT, along with functionalization, separation, and processing are requisite supporting technologies that will be further developed in the project. SWNT can confer unique advantages and functionality to a range of macroscopic materials and components broadly relevant across Air Force systems.

4. University of Texas Health Science Center: \$8,515,705 in Army's Research, Development, Test and Evaluation account, line 30, PE# 0603002 to enhance infrastructure and purchase monitoring and investigative equipment. Far too many preventable deaths result from failures to adequately identify and treat life and/or limb threatening injuries. The Center's research will identify best practices for trauma management that is applicable in the hospital and on the battlefield.

5. Methodist Hospital: \$1,000,000 in Army's Research, Development, Test and Evaluation account, line 28, # 0602787A to support the research and creation of nano-imaging agents for early disease detection. Nano-imaging agents are safely injected into a patient and provide a three-dimensional image, creating a "night vision" that lights up tissue changes and cell anomalies and enabling more accurate diagnostics.



Current imaging dyes damage kidneys and disappear within minutes. Nano imaging agents pass through the body harmlessly and illuminate individual capillaries for hours.

6. Baylor College of Medicine: \$2,000,000 in Army's Research, Development, Test and Evaluation account, Line 28, #0602787A for technological support for research on the management of trauma-induced cognitive impairment. The wars in Iraq and Afghanistan have left thousands of soldiers from suffering from traumatic brain injuries and stress disorders. Asymptomatic patients must be diagnosed early to mitigate the long term effects of these injuries.

7. Rice University: \$5,000,000 for nanotechnology research to improve capabilities for the Air Force in aircraft, missiles and space applications in the Air Force's Research and Development, Materials account, line 4, PE #0602102F.

The Consortium for Nanomaterials for Aerospace Commerce and Technology (CONTACT) seeks funding to support nanotechnology research focused on four areas critical to the next generation of military systems – Adaptive and Responsive Materials, Nano Energetics, Sensors, and Power Generation and Storage.

This research program funds university research for use by the aerospace industry and the Air Force. It carries out a dozen research projects with a total four-year budget of \$11.2 million (with FY2010 as the final year). CONTACT fosters collaborations including a student travel grant program and transfer of technology to industry.

The first National Nanotechnology Initiative was launched in 2000 with the federal budget currently at triple the initial amount. Recognizing the economic and societal impact of nanotechnology, 60 countries -- including the United States -- have established similar initiatives resulting in tens of billions of dollars invested. Nanotechnology is impacting the future of the military and aerospace. The increasing demands for high performance and property-specific applications are forcing the scientific world to take novel approaches in developing programs and accelerating output. In order for the U.S. to maintain the competitive edge in technology over other countries like Japan, China, Germany, and South Korea who are rapidly increasing their nanotechnology investments, we must find solutions to accelerating commercialization.

8. **CureSearch:** \$100,000 in Army's Research, Development, Test and Evaluation account, line 30 # 0603002A to support pediatric cancer clinical care trials throughout the nation. Clinical trials have significantly increased the cancer cure rate for children from less than 10 percent in the 1950's to over 80 percent today.

I would also like to support Congressman Randy Neugebauer's request for \$3,000,000 for Texas Tech University's compact pulsed power initiative to remotely disable and destroy IEDs (Army, RDT&E, line 55, PE #0603305A).

Should your office need any additional information, please contact Katie Bruns or Brittany Seabury at 5-2751.

Thank you in advance for your consideration of my requests.

Sincerely,

John Culberson
Member of Congress